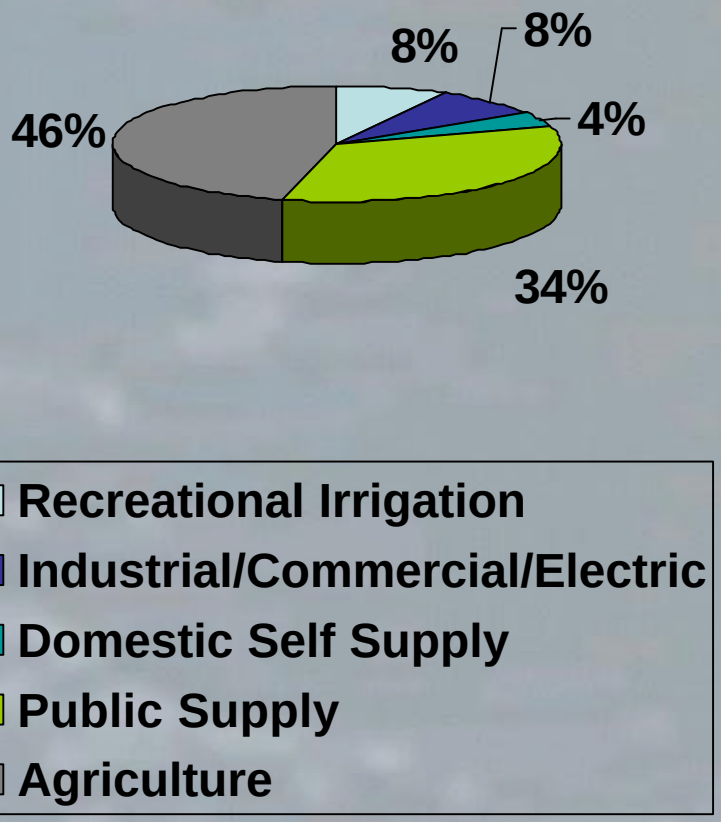
Linking Land Use and Water Supply Planning

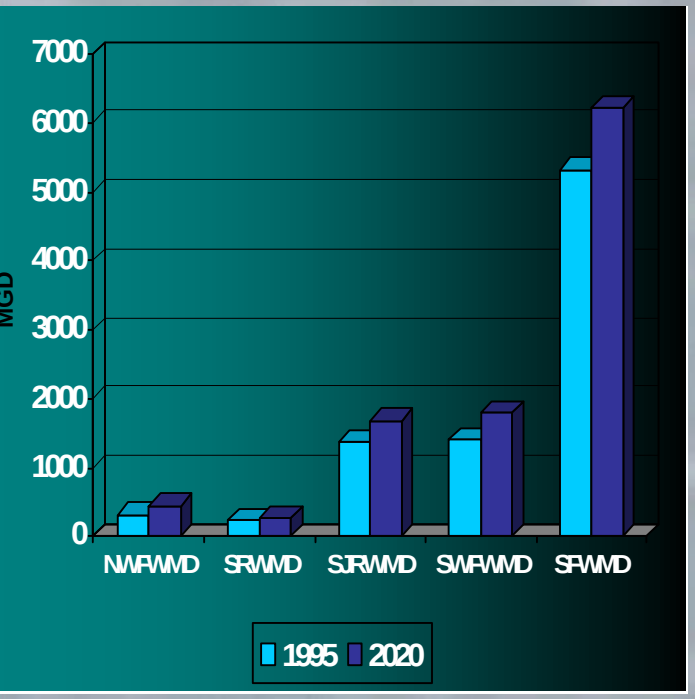
2002 Legislation

- Infrastructure Element: By January 1, 2005, or the EAR due date, whichever comes first, the element must consider the regional water supply plan. It must include a work plan, covering at least a 10-year period, for building water supply facilities for which the local government is responsible to serve existing and new development.

Why Were Additional Water Supply Planning Requirements Adopted?

- Population growth: from 15.9 million today to 21.8 million in 2020
- Increased demand for water: demand projected to increase by 26.4% to 9.1 bgd
- Fastest increase in public water supply

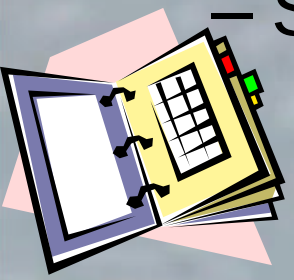




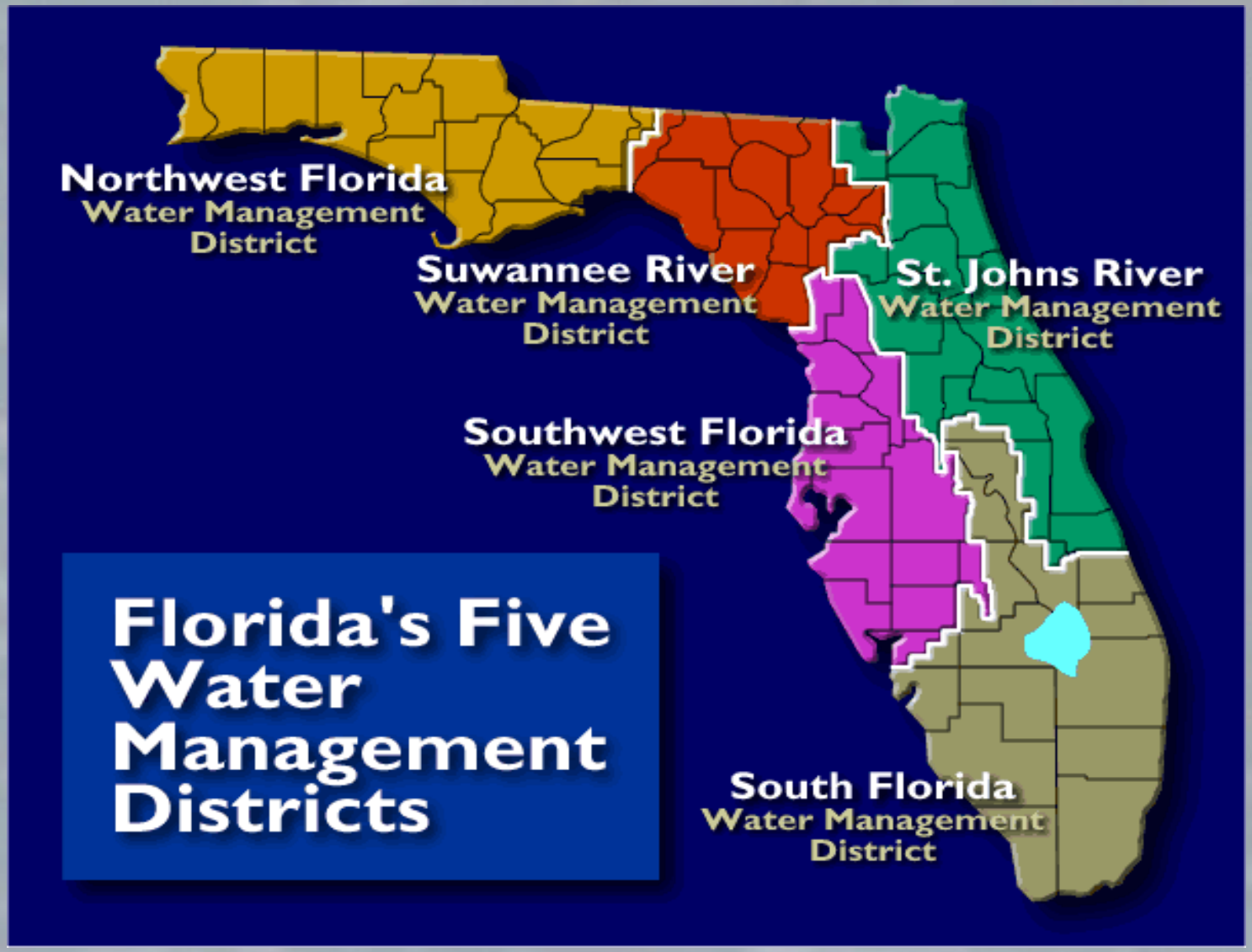
- 1997: Legislature required regional water supply plans for areas where traditional sources of water would be inadequate by 2020
- Existing sources will not be adequate to meet projected demand
- Sense of urgency added by severe drought of 2000 - 2001

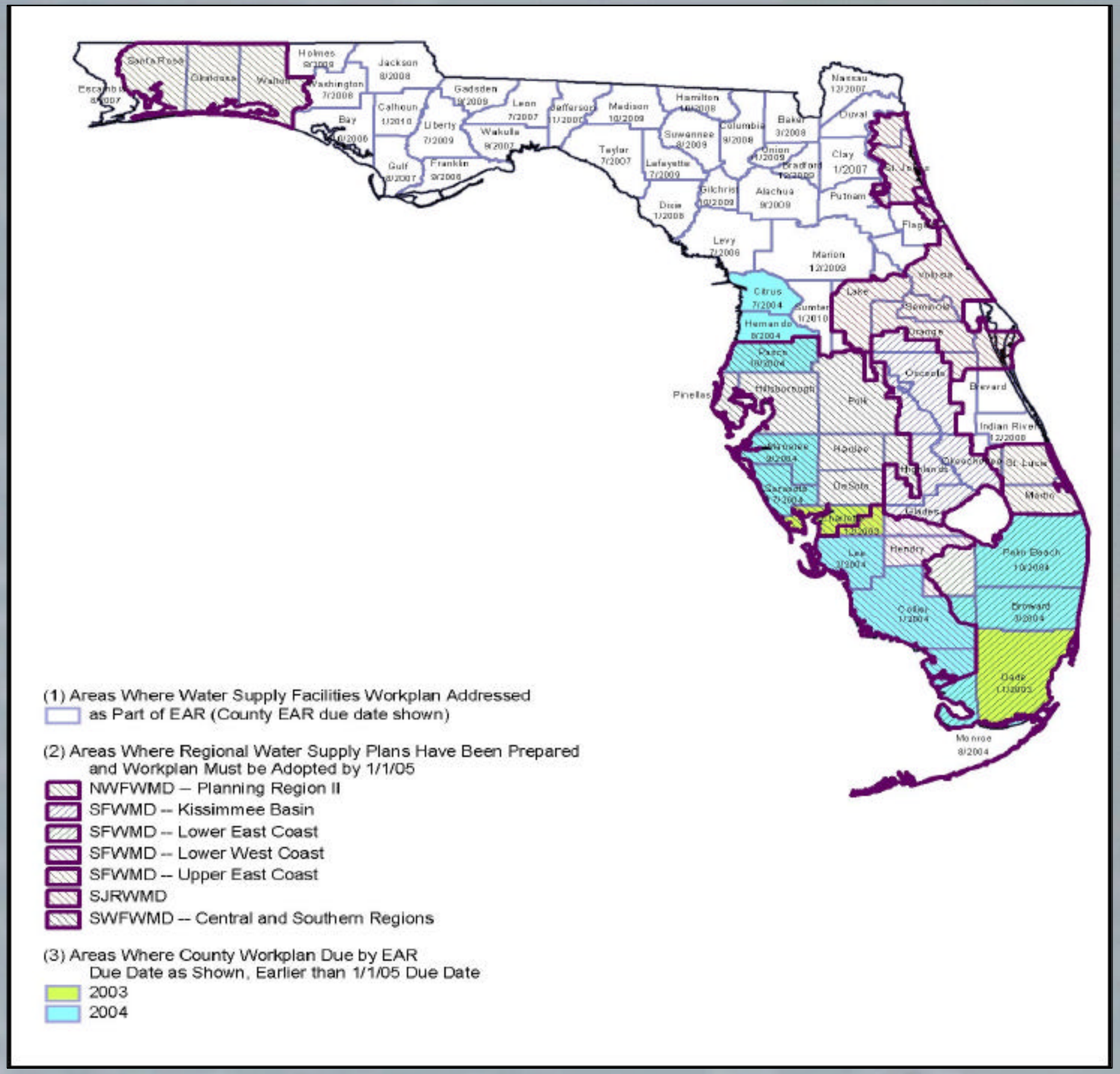
Regional Water Supply Plans (RWSP)

- Contain a list of water source options which will meet anticipated demands while sustaining water resources and related natural systems
- By August 2001, all RWSP complete
  - for NWFWMD, SJRWMD, SWFWMD, and SFWMD
  - SRWMD sources adequate so no RWSP



Water Management Districts





(1) Areas Where Water Supply Facilities Workplan Addressed as Part of EAR (County EAR due date shown)

(2) Areas Where Regional Water Supply Plans Have Been Prepared and Workplan Must be Adopted by 1/1/05

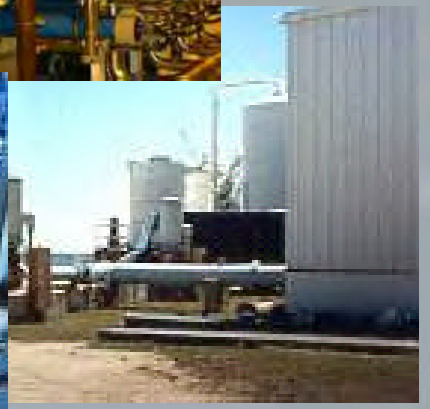
- NWFWMD -- Planning Region II
- SFWMD -- Kissimmee Basin
- SFWMD -- Lower East Coast
- SFWMD -- Lower West Coast
- SFWMD -- Upper East Coast
- SJRWMD
- SWFWMD -- Central and Southern Regions

(3) Areas Where County Workplan Due by EAR Due Date as Shown, Earlier than 1/1/05 Due Date

- 2003
- 2004

Water Supply Sources

- New well fields
- Increased use of reclaimed water
- Storage reservoirs
- Surface water withdrawal
- Aquifer storage and recovery
- Reverse osmosis/desalination
- Conservation

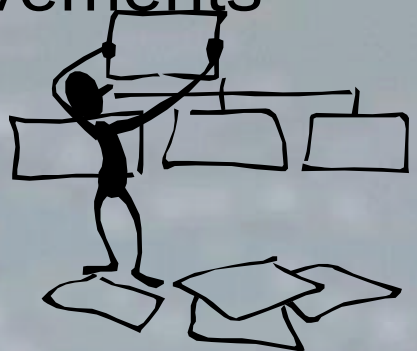


Who Must Prepare 10-Year Water Supply Work Plan?

- Initially, only local governments having responsibility for all or a portion of their water supply facilities and located within a RWSP area
  - must prepare by Jan 1, 2005, or EAR due date, which occurs first
- Eventually, all local governments having water supply responsibilities must prepare 10-year work plan
  - Must prepare as part of EAR-based amendments

What Amendments Are Required?

- The infrastructure element must be amended to include at least a10-year work plan for water supply facilities for which the local government has responsibility
- The amendment must consider the RWSP
- The capital improvements element must be amended to include any capital improvements needed during the first 5 years



Requirement Varies with Level of Responsibility

- Local government **is responsible for all** water supply facilities
  - Project need for at least 10-years
  - Develop at least 10-year work plan
  - Amend infrastructure element to show consideration of RWSP and incorporate 10-year work plan
  - Amend CIP to include capital improvements needed during first 5 years

- Local government **<u>is not responsible for any</u>** water supply facilities
  - Project needs for at least 10-years
  - Coordinate with water supplier to ensure need can be met with respect to infrastructure and sources, considering RWSP
  - Coordinate with WMD regarding ability of water supplier to meet need
  - Letter to DCA and supporting documentation from water supplier confirming need can be met

LG has responsibility for **a portion** of water supply facilities (commonly distribution system)

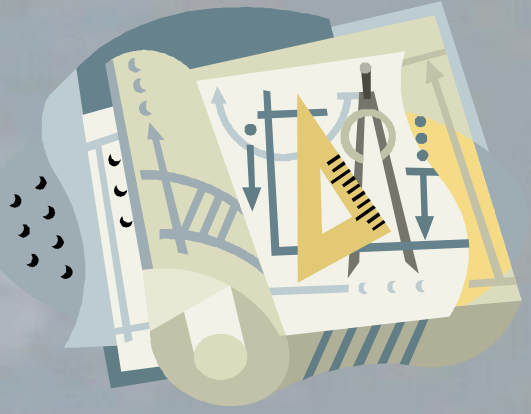
- Project need for at least 10-years and develop work plan for facilities for which responsible, considering RWSP
- Amend infrastructure element and CIP
- Coordinate with water supplier to ensure need can be met with respect to infrastructure and sources, considering RWSP
- Coordinate with WMD regarding ability of water supplier to meet need
- Letter to DCA and supporting documentation from water supplier confirming need can be met

Work Plan Amendment
Data and Analysis

- Identify facilities for which responsible
- Analyze existing and projected supply and capacity by geographic service area
- Determine need by service area
- Prioritize capital projects needed to serve projected 10-year needs
- Consider RWSP regarding projected needs and sources
- Coordinate closely with WMD

Work Plan Amendment Adopted Components

- List of water facilities needed in priority order for at least next 10 years
- For each facility:
  - Anticipated year of construction
  - Water source to be utilized
  - Estimated cost
  - Source of funds



- Facilities needed during first 5 years adopted into CIP
  - Financially feasible
  - Committed source of revenue
- Revisions to infrastructure element to reflect consideration of RWSP

Pilot Communities

- Five pilot communities, one in each WMD
  - City of Venice (SWFWMD)
  - Palm Beach County (SFWMD)
  - City of Cocoa (SJRWMD)
  - Lake City (SRWMD)
  - Okaloosa County (NWFWMD)
- Have gone first to:
  - Prepare work plans examples
  - Identify common problems
  - Refine guidelines
  - Identify how DCA and WMDs can best help

Lessons Learned

- Lesson #1: Importance of Intergovernmental Coordination
  - With the WMD
  - With private and public water suppliers
  - Between local governments
  - Between land use planners and utility planners

- Issues upon which coordination is essential
  - Water sources
  - Annexation
  - Service areas
  - Bonding for capital improvements
  - Long range land use planning linked to water utility plan-ning

- Lesson #2: Consideration of RWSP
  - Palm Beach Co will find it difficult to continue withdrawals from regional water system and so turning to reuse, ASR, and wetlands treatment to meet future needs
  - Okaloosa Co can no longer count on coastal withdrawals and so going north of Eglin AFB
  - Venice's annexation plans, limitations on future aquifer withdrawals, and complications with the RO process mean that it will depend more heavily on reuse, conservation, and a potential desalination plant
  - Cocoa cannot increase withdrawals from Orange Co well fields and so turning to surface water withdrawal

- Lesson #3: Ten years is not a long enough planning time frame
  - Identify need for alternative sources early so solutions to projected deficiencies and implementation of solutions can occur timely
  - Permitting and development of sources is a multi-year process
  - High cost of capital improvements require long term financial arrangements and commitments, including bonding requirements

- Lesson #4: WMD evaluation of water supply plan is not the same as guaranteeing a CUP will be issued
  - The water supply plan is a planning document and WMD's review only indicates:
    - that the source the community intends to develop is reasonable and reflects consideration of RWSP
    - that projected needs are in line with RWSP

- Lesson #5: Weak linkage between land use planning and water supply planning
  - Future land use planning and water supply planning have become two separate departments and processes
  - Not strong consideration of future water supply needs when approving map amendments because no application for immediate development approval; assumption that the water will be there when needed
  - Land use changes are proposed and approved without consideration as to whether the future sources of water will be sufficient

- Utilities' statement of sufficient current facility capacity does not ensure water will be available when needed
  - Facility may not have capacity when development occurs
  - Plant capacity and permitted withdrawal may be different
- Further evidence of missing link
  - Salt water intrusion
  - Environmental degradation – wetlands, springs, streams
  - Contamination of potable water sources
  - Development delayed or precluded
  - Costly engineering solutions to permit what has been approved on the land use plan